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Community supported agriculture in urban settings: A way for better understanding and implementation of sustainability – a Norwegian experience

S. Friis Pedersen,

NORSØK, Norwegian Centre for Organic Agriculture, Tingvoll, Norway. ^{a)}

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ABSTRACT

Norway covers an abundant wilderness, only 3 % of the land are cultivated. Population is scarce many places of the country, but like trends elsewhere, there are a concentration towards more urban settings.. Urban citizens take action for future sustainable development through producing some of their own food. Politics protect land resources for agriculture, but agricultural areas are still decreasing. The official goal of 15 % production and market shares of organic products in 2020 can stimulate urban farming.

Literature states how people carries out top goals for sustainability in a humble practical approach.

The eagerness to grow food is underlined by the growth of community supported agriculture (CSA) from a single one in 2006 to more than 50 in 2016. Market statistics illustrates that majority of organic food in Norway is distributed in alternative channels like CSAs, Farmers market or directly from the farms. Compared to other Scandinavian countries the common market chains for organic food are less developed in Norway.

Consumers motivation for participating in CSA is food security, environment and to control the food chain. CSA farmers are motivated by minimizing the economic risk and getting company in everyday life.

CSAs are mostly located in urban surroundings and directed by a farmer or a gardener. Consumers in the cities also initiate CSAs. The visibility and learning by doing makes a comprehensive demonstration of sustainability.

a) Email: Susanne.friis.pedersen@norsok.no

INTRODUCTION

There has been an exceptional growth in numbers of community supported agriculture (CSA) in Norway, from a single one in 2006 to more than 50 in 2016 (Anon., 2016)). The engagement is spread all over the country (County governor in Oslo and Akershus, 2016: OIKOS, 2016). Each CSA involves from 10 to 350 shareholders. Each shareholder prepays between 130 to 380 euro each year and volunteers in the farm work.

CSA is:

“A partnership between farmers and consumers where, at the best, the responsibilities and rewards of farming is shared”. CSA implies three different values: 1) Dialogue, between farmer and consumer 2) Transparency in economy and 3) Shared benefits and costs. CSAs are practiced in either a consumer- or a farmer-driven model. Furthermore, a characteristic is that members often participate in work on the farm (Soil Association).

CSA as a phenomenon was implemented in the 1980'es in Canada, UK and USA, but is rooted in Japan in the 1960'es, where “Teikei” emerged, which means “farming with a human face” (URGENCI, 2016). Urban and peri-urban food production involve globally 800 million people according to FAO (Karanja and Njenga, 2011). Interest among consumers to grow their own food is booming worldwide. It is mostly welcomed and encouraged by authorities as shown in the communique from a meeting between agriculture ministers of 65 nations (GFFA, 2016), but can as well stimulate some tensions in a negative way. Tensions could be a gap between authorities and activists in perception and intentions (Hausenberg, 2012). Tensions could as well be differences in interest and methods like lowtech backyard cultivation or high-tech vertical soilless farming (Ulrichs and Mewis, 2015; Dubbeling, 2014).

The Scandinavian countries (Denmark, Finland, Norway and Sweden) hold rather ambitious national plans for implementation of organic farming. The governments justify this because it can be a part of a sustainable development. The national Action Plan in Norway is aiming for 15 % organic production and consumption in 2020. The big number of CSAs in Norway, all organic, is exceptional; Denmark counts for one, Finland for eight and Sweden for a dozen CSAs (Roisin, 2016).

The Royal Norwegian Society for Development took the first initiative on CSA starting out in 2006. The County Governor in Telemark has outlined a local strategy for development of CSA. The County Governor in Oslo and Akershus has started up a centre for urban agriculture.

This paper aims to 1) describe a new trend in society, 2) outline what is special about the Norwegian experience and 3) assess implementation of sustainability in aspects of ecological, economic and social sustainability. Assessment of sustainability can implement a wide range of indicators (Dizdaroglu, 2015). This assessment will mainly focus on household and lifestyle.

MATERIALS AND METHODS

To investigate what makes the Norwegian experience special a literature study was carried out, comparing experiences in other countries. The URGENCI webpage (urgenci,2016) provides important worldwide information. A review article about urban farming in developed countries as USA, Canada, United Kingdom, Australia and Japan covers a great deal of relevant information (Mok et.al., 2014). The African Capacity Building Foundation gives as well an overview from the global south. The FAO project "Growing greener cities" highlights experiences from cities in Africa and Latin America (FAO, 2016). In addition several articles published in *Acta Horticulturae* focus on cases from a broad specter of cities worldwide. Telemark Research Institute and University of Oslo have done some research on the topic.

Norwegian thinking is highly influenced by desires of self-sufficiency in different levels, for instance for each family, for the cities or even for the entire country as stated on national seminar for urban and peri-urban agriculture (S. Larssæther, pers. comm., 2016). This prospective is quite opposite to areas hosting megacities with more than 10 million habitants where the concept Sustainable Urban Development (SUD) could be more appropriate. This concept operates more from an ecosystem approach and offers planning instruments for decision makers (Yigitcanlar and Teriman, 2015). These two perspectives are not discussed further in this text, but are important to mention because it sets the scene.

CSAs are enforced by Norwegian NGOs. The Royal Norwegian Society for Development started out revealing possibilities for CSA at their property. The organization OIKOS – Organic Norway has as well played an important role in development of CSAs with promotion of CSAs. They coordinate the network of CSAs and have published a handbook on CSAs (Devik, 2015).

The Norwegian Farmer's Union is another prominent actor in CSA development in Norway, even this is not expected in peri-urban areas. Inviting citizens to participate in farm work is not common practice any place.

Friends of the Earth Norway is also an active driver in development of CSA and should be mentioned as well.

RESULTS

CSAs in Europe initiated in Switzerland 35 years ago, spread to a few other countries and took off in the new millennium. It exist in 21 countries at the moment. France counts for 2000, Belgium for 138 and Italy for 104 CSAs (Roisin, 2016). Comparing the Norwegian experience with other countries, one may list what is special in the Norwegian case:

Market statistics illustrates that nearly 60 % of the organic food are distributed in alternative channels like CSAs, Farmers market or directly from the farms (SLF, 2016). Compared to other Scandinavian countries the distribution in supermarkets is limited. Supermarkets are concentrated in three dominating company chains, which are often critized for the availability of organic goods in general (NOU, 2011). Similar criticism comes

to the consumption of organic food in public institutions, which does not promote the goals of 15 % consumption in the action plan, (Riksrevisjonen, 2016).

Engagement of many people working on the farm, often people without agricultural skills, makes up a situation where the suitability of pesticides is questioned. Organic methods are most often implicit CSA (Roisin, 2016). Nevertheless Resource Centre on Urban Agriculture and Food Security (RUAF) states that organic certification is rare, but reported from Cuba (Novo and Merzthal, 2002) and Netherlands (Deelstra et. al., 2001).

A questionnaire showed that people involved in CSA in Norway were committed to buy organic before connecting to CSA-projects, and such connection made the consume rise without hazards in private budget (Hvitsand, 2014).

Motivation for consumers is to do something active for food security, environment and to be able to trace food during production (Hvitsand, 2014). This finding varies from other countries where the consumers statement is a lifestyle or a necessity instead. For instance a study from Netherlands shows that urban people doing gardening does not link this to any other values than a chosen lifestyle (Veen et. al., 2012). Economic encouragement is supported by FAO in developing countries and is motivation for many people there (FAO, 2016).

Focusing on economy the consumer certainly finds motivation in cheaper and shorter food chain. The farmer on the other hand is motivated by minimizing the economic risk and getting company in everyday life. Young people hesitates to take over family farms because they fear the loneliness (Hvitsand and Svardal, 2012). The balance between production and consumption constitutes a sustainable economy.

Social aspects of sustainability can be measured looking at the inclusion of young families, learning the new generation about food production. Normally all shareholders pays an amount in the beginning of the growing season, which secure the farmers economy for that season. Some of the Norwegian CSA have a lower payment for students or retired persons, which means a better inclusion of economic vulnerable citizens. Social events connected to farm activities and seasonal work promotes social cohesion (Hvitsand, 2014).

DISCUSSION

The idea of CSA is ecological sustainable, if some considerations are taken into account and can be done to practice. Often one will see that organic certification is not economic nor administrative reachable. The international federation of organic farming, IFOAM Organics International, stated in 2011 that they supported urban farming as a private initiative and held preconference on the topic before their world congress in 2011 (Anon., 2011). Nevertheless considerations avoiding contaminated soil, but still practice contact with soil, is important for organic farming in urban areas.

Organic farming without artificial fertilizer and some places without input of animal manure can as well be a challenge. Caretaking of animals is not an option for the majority of CSAs. The daily continuity is doubtful due to distances between farm and living place. Manure is a keystone in organic farming and this underlines the challenge to name CSA an ecological sustainable concept (Devik, 2013). The social aspect of inclusion may also be questioned.

One can wonder if the inclusion only covers a minor group of convinced organic activists, closed around their own sanctuary.

The CSA-concept would only be a success in peri-urban areas. It cannot be a solution for all farmers. Stating that young people hesitates to take over the family farm due to loneliness issues may not be the case for farms located close to cities. The young people hesitating taking over family farms as mentioned earlier are not necessarily in the scope of this issue.

Protection of agricultural areas is identified as one of five most important issues in urban planning (Leipzig charter, 2007). It is probably even more important in the case of Norway. Maybe the interest for CSA also is connected to this awareness and to some degree explains why this is the case in Norway and not in other Scandinavian countries.

CONCLUSION

The following is special in the Norwegian experience:

- The commercial market for organic food are still limited compared to neighbouring countries, this may encourage consumers to do something actively.
- The area of arable land is limited and mostly located in peri-urban areas.
- The engagement of organizations, like The Norwegian Farmer's Union, OIKOS – organic Norway and Friends of the Earth Norway, to be leading actors is unique compared to other countries.

The literature survey states that the Norwegian experience is sustainable in three aspects considered:

- Ecological sustainable because it implies low input, low contamination and high diversity.
- Economical sustainable because it balances production and consumption.
- Social sustainable because it give the upcoming generation competence and understanding in food production and include a wide range of different people living under conditions where cultivation may not be possible.

The Norwegian CSAs are carrying out top goals for sustainability in a humble practical approach from the people.

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